We Claim:

1. A method of connecting an integrated optical waveguide circuit component with an optical fiber array, said method comprising the steps of:

providing an integrated optical waveguide circuit component having N input and output waveguides including a subset of at least one u-waveguide structure;

providing an optical fiber array having an array of M optical fibers, said optical fibers each having a coupling end for optical coupling to some set/subset of respective individual corresponding waveguide ports of said circuit component, some set/subset of said optical fibers terminating with an individual optical fiber terminal end;

positioning said optical fiber array adjacent to said integrated optical waveguide circuit component, so that a plurality of photons emitted from optical fiber array ports are coupled into the respective individual corresponding u-waveguide coupling regions on said optical integrated optical waveguide circuit component and back into the corresponding optical fiber array adjacent to said integrated optical waveguide circuit component;

means for adjusting the relevant position of said optical fiber array to said integrated optical waveguide circuit component so that the sensed value representative of the total optical power of the photons is maximized, and

means for securing said position of said optical fiber array to said integrated optical waveguide circuit component.

2. The method of claim 1, wherein providing an optical fiber array further comprises providing an optical fiber array held in an optical fiber array holder, wherein said coupling ends of the optical fibers are contained by said optical fiber array holder.

3. The method of claim 2, wherein said optical fiber array is comprised of an optical fiber array ribbon. .

4. The method of claim 3, wherein said optical fiber terminal ends are contained by said optical fiber array ribbon.

5. The method of claim 2, wherein means of securing said position of said optical fiber array to said circuit component comprises adhering said optical fiber array holder to said circuit component so as to maintain the maximized sensed value.

6. The method of claim 1, wherein M and N are at least two.

7. The method of claim 1, wherein said circuit component comprises a planar substrate.

8. The method of claim 1, wherein said circuit component comprises optical wavelength processing devices.

9. The method of claim 1, wherein adjusting the relevant position comprises adjusting the relevant position in two translations and one rotation.

10. The method of claim 1, wherein the relevant position of said optical fiber array to said circuit component is adjusted with an auto-alignment system.

11. The method of claim 1, wherein said sensed value representative of the total optical power is inputted into said auto-alignment system.

12. The method of claim 11, wherein said auto-alignment system adjusts the relevant position of said optical fiber array to said circuit component in at least two translations and at least one rotation based on the sensed value representative of the total optical power that is inputted in the auto-alignment system.